



Board of Directors

Enrique Valdivia, *President*
William Bunch, *Vice President*
Tom Wassenich, *Treasurer*
Ron Green, *Member*
Steve Hixon, *Member*
Darby Riley, *Member*

Executive Director

Annalisa Peace

Office: 1809 Blanco Road, San Antonio, Texas, 78212

Mail: PO Box 15618, San Antonio, Texas, 78212

Phone: 210.320.1457 Fax: 210.320.6298

info@aquiferalliance.org

www.AquiferAlliance.org

I. Table of Contents

I. TABLE OF CONTENTS.....	2
II. EXECUTIVE SUMMARY.....	3
III. CORPORATION DESCRIPTION	5
IV. PRODUCTS & SERVICES	6
V. MARKETING PLAN (ADVERTISING AND PUBLIC RELATIONS)	10
VI. MANAGEMENT & ORGANIZATION	11
VII. FINANCIAL PLAN	12
APPENDIX A: PROFIT & LOSS STATEMENTS.....	13
APPENDIX B: MEMBER GROUPS.....	23
APPENDIX C: EDWARDS AQUIFER PROTECTION PLAN.....	24

II. Executive Summary

Mission Statement

The Greater Edwards Aquifer Alliance (GEAA) is a 501(c)(3) nonprofit organization that promotes effective broad-based advocacy for protection and preservation of the Edwards Aquifer, its springs, watersheds, and the Texas Hill Country that sustains it. The Edwards Aquifer is the source of the largest springs in Texas and the sole source of drinking water for more than 1.5 million Central Texas residents.

Board of Directors

Enrique Valdivia, *President*, is an attorney with Texas Rio Grande Legal Aid, where he chiefly works on environmental issues. He also serves as president of San Antonio's Aquifer Guardians in Urban Areas (AGUA), as an elected Director of District 7 of the Edwards Aquifer Authority, and on the boards of Texas Fund for Economic & Environmental Education, Fuerza Unida, and Jump Start Performance Company.

William Bunch, *Vice President*, has a bachelor's degree in biology from the University of Colorado at Boulder and a law degree from Boalt Hall School of Law at the University of California at Berkeley. A native of San Antonio, Bill returned to Texas to practice environmental law in Austin in 1986, first with the law firm founded by Stuart Henry, later as a sole practitioner, and then as chief counsel and Executive Director for the Save Our Springs Alliance. Mr. Bunch was part of the group that drafted and successfully petitioned for Austin voter approval of the Save Our Springs Ordinance in 1992.

Tom Wassenich, *Treasurer*, has an MS in Geography from Texas State and works as a consultant in water issues. He recently finished editing a book with Andy Sansom of the River Systems Institute titled "*Water in Texas: An Introduction*" published in 2008. In 2005 his thesis was published under the title "A Guide to the Protection of Freshwater Inflows in Texas" and was distributed to the Texas Legislature and heads of all environmental agencies in Texas by the River Systems Institute. He also serves as Chairman of the Legal and Finance committees of the San Marcos River Foundation, just concluded a 5-year term on the Transportation Advisory Board of the City of San Marcos and is President and founder of Bike San Marcos. Tom is very involved in civic issues, having served on the Blue Ribbon Bond Committee for the City of San Marcos and managing five recent city council campaigns. Prior to earning his degree Tom spent 25 years in the restaurant business as owner/manager.

Ron Green, *Member*, holds a Ph. D. in Hydrology from the University of Arizona and M.S. in Geophysics from the University of Utah. He currently works as an Institute Scientist in the Geosciences and Engineering Division at Southwest Research

Institute and has published an extensive number of works. His work includes in depth studies of the Carrizo- Wilcox aquifer, Edwards Aquifer, and Edwards- Trinity aquifers. He also provides technical expertise in groundwater hydrology and environmental geophysics. Mr. Green currently serves on the boards of The Children's Shelter Board of Trustees, The Children's Shelter Foundation Board of Trustees, The Sen. Frank Madla Natural Area Board of Trustees, The Helotes Creek Nature Center, The Helotes Heritage Association, the National Cave and Karst Research Institute. Mr. Green is also a member of the Edwards Aquifer Authority Aquifer Science Advisory Panel and serves on the Expert Science Subcommittee for the Edwards Aquifer Recovery Implementation Program.

Steve Hixon, *Member*, holds a J.D. (1969) and B.B.A. (1966) from the University of Texas at Austin. After attending UT he served in the United States Army serving in San Francisco and Korea. Mr. Hixon is an environmental businessman and dedicates his time to supporting local organizations that strive to make San Antonio a better place to live and leave for future generations. He serves on the boards of the San Antonio Executives Association and Bexar Land Trust. Mr. Hixon supports the San Antonio Zoo, Green Spaces Alliance, Cibolo Nature Center, San Antonio Conservation Society, UTSA, UTMB School of Nursing, Boysville, Salado Creek Foundation, Last Chance Forever, The Nature Conservancy, Trust for Public Land, The Texas Wildlife Foundation, and Mitchell Lake Audobon Center. Mr. Hixon has also climbed to the top of Mt. Kilimanjaro.

Darby Riley, *Member*, has a law degree from St. Mary's University and is a board-certified civil trial lawyer. A native of San Antonio, Darby serves as President of the Leon Valley Historical Society and is a certified Texas Master Naturalist. Darby chaired the State Democratic Party's Environmental Caucus for eight years and also served on the Leon Valley City Council from 1982-1990. During his time as a Council member, he helped to start the first curbside recycling program in South Texas. He has been deeply involved in many other organizations, including the San Antonio Area Girl Scouts (Board member and Finance Committee) and the Catholic Archdiocese of San Antonio (Peace and Justice Commission). Darby has been married to Chris Riley since 1971, and they have three adult children

The principal contact for GEAA is Annalisa Peace, Executive Director.
GEAA can be contacted via the following:

Mailing Address:

P.O. Box 15618
San Antonio, TX 78212

Physical Address:

1809 Blanco Road
San Antonio, TX 78212

Phone: (210) 320-6294

Fax: (210) 320-8518

GEAA's goals and objectives include:

- Producing and distributing educational materials that will assist public and private sector decision makers to take actions to protect and sustain the quality and quantity of Edwards Aquifer flows.
- Expanding and aiding the coordination of existing public interest for sustainable water and land use practices in the Greater Edwards Aquifer region.
- Catalyzing greater investment by private non-profit and for-profit organizations, government agencies, and individuals in Edwards Aquifer watershed preservation and sustainable water and land-use practices.

GEAA History

Urban sprawl is threatening the quantity and quality of water in the Edwards Aquifer and the rural character of the beloved Texas Hill Country. Citizen-based conservation organizations working in their own local areas (San Antonio, San Marcos, Wimberley, Dripping Springs, and Austin) recognized the need to work collectively – across the entire Edwards Aquifer region – to be more effective.

Groups and individuals began meeting in the summer of 2002, and a few months later, the Greater Edwards Aquifer Alliance was born. The first thing this group of individuals agreed on was the need to develop a plan of action to save the Edwards Aquifer. Working together, this group wrote the Edwards Aquifer Protection Plan, a consensus action plan for saving the Edwards Aquifer based on sound science and sustainable economic principles. Over the past few years, we have expanded the number of groups that have joined the alliance by signing on to the Protection Plan, and our reach is now from Austin to Del Rio. A list of current member groups is found in Appendix B; the Environmental Protection Plan can be found in Appendix C.

III. Corporation Description

The Greater Edwards Aquifer Alliance (GEAA) is a 501(c)(3) nonprofit organization that promotes effective broad-based advocacy for protection and preservation of the Edwards Aquifer, its springs, watersheds, and the Texas Hill Country that sustains it.

GEAA was established in 2002 as a way to bring together local organizations focused on water issues relevant to the Edwards Aquifer. Many organizations were already present in areas surrounding the Edwards Aquifer. These organizations were focused on local issues, relevant to their specific location. In order to be more effective overall, these citizen-based organizations found it necessary to work

collectively in order to accomplish greater goals. The Alliance was founded as a way to keep each of these organizations in mind, and bring everyone together for the benefit of the Edwards Aquifer and those who live here. Since its founding GEAA has aided in the formation of new groups that focus on local issues in unserved areas.

GEAA headquarters is located in central San Antonio, and houses the on-site staff- primarily consisting of the Executive Director and Special Projects Coordinator. This office is also a shared space with the League of Women Voters, and Aquifer Guardians in Urban Areas (AGUA) non-profit organizations. The GEAA office is housed with a computer and phone line for each staff member, a fax line and machine, copy machine, printer, and wireless internet. Additionally, the office serves as a central location for GEAA paraphernalia and campaign materials for ongoing projects, as well as a central location for organization meetings.

IV. Products & Services

The **GEAA Technical Research Program** provides our member groups, and the public at large, with technical expertise and access to information that addresses issues of regional and local concern as related to the preservation of the quality and quantity of the waters in the Edwards Aquifer, its contributing watersheds, and its indigenous plant and animal species. Sound science is necessary to advance policy recommendations; specifically those recommendations for protecting water quality and biodiversity and maintain spring flow. Key science areas include biology, environmental engineering, hydrology, and hydrogeology.

GEAA's efforts to date have produced solid results. A perusal of the document section on our website reveals the scope and merit of technical research generated by GEAA on topics of importance to protection of the Edwards Aquifer. Our recommendations to the Edwards Aquifer Authority (EAA) on proposed rules for Hazardous Materials were incorporated in their entirety into the draft presented by EAA staff for public comment and approved by the EAA Board in March 2008. GEAA comments submitted to U.S. Fish and Wildlife Service concerning the proposed *Habitat Conservation Plan for the Comal Springs Invertebrates* were praised by top experts and widely circulated among those working in this field. Currently, GEAA has engaged a team of graduate students and experts in efforts to identify the source or sources of mercury contamination of Edwards Aquifer wells.

Our technical staff has become recognized as a resource for many of the rural municipalities within our region. Workshops, dissemination of technical materials, and hands-on guidance in securing funding for water infrastructure upgrades ensure that all Hill Country communities have access to the tools they need to plan for anticipated growth without sacrificing quality of life or our natural resources.

We work with rural landowners, pairing them with expert hydrologists, volunteers and interns to map well locations as the basis of modeling that will enable us to better understand the interface of the Edwards and Trinity aquifer systems.

GEAA has been contracted to provide these services within a specific geographic area to a private research firm.

The **GEAA Permanent Protection Program** works toward the creation of a national park-scale network of watershed preserves, parks, and private conservation ranches strategically located over the Edwards Aquifer recharge and contributing zones. This goal will be achieved by identifying appropriate parcels of land and raising funds to purchase land and development rights, by working to build public support for city, county, state and federal funding for purchase of fee simple lands and conservation easements, and by meeting and building relationships with private landowners in the Edwards Aquifer region to encourage voluntary conservation and stewardship of their land, and to prioritize protection measures among ranch owners at the suburban edge most in need of support to conserve their land.

Capacity Building - GEAA staff provides member organizations with legal, technical, public relations and publicity, fundraising and administrative advice and services, as well as with financial support for specific projects that further the implementation of the Edwards Aquifer Protection Plan. GEAA has successfully developed and implemented a model of working locally as individual groups, while sharing resources regionally, and advocating for a regional vision and regional solutions to the threats to our water, wildlife, scenic lands and rural communities.

Consensus Building

GEAA represents the consensus positions of our member groups in regional processes convened to address various water issues, including:

- The **Edwards Aquifer Recovery Implementation Program** (EARIP) is an effort engaging a remarkably diverse group of interested parties in a formal consensus process with the goal of devising a plan to preserve the endangered species at the Comal and San Marcos springs in fulfillment of Federal requirements and the demands of the State Legislature set forth in Senate Bill 3. GEAA serves as the fiscal agent for a \$1,063,000 Section 6 grant from the US Fish and Wildlife Service. GEAA Executive Director Annalisa Peace serves as an alternate on the Executive Committee and on the Budget, Outreach and Fundraising committees.
- Member organizations of Ground Water Management Area 9 are working together to form a consensus position on desired levels of future pumping from the Trinity Aquifer through the State's **Desired Future Conditions** process.
- GEAA has been engaged to provide technical resources to the **Texas In-Stream Flow Program**, which convenes stakeholders from five subwatersheds to collectively determine how to ensure that sufficient amounts of water reach Texas bays and estuaries.

- GEAA staff represents the interests of its member groups on various ad hoc stakeholder groups tasked with devising regional habitat conservation plans, environmental impact statements, new ordinances and policy for protection of the regional ecosystem.
- The **GEAA Legislative Committee** advocates an agenda aimed at giving municipalities and counties within the Edwards region the means to protect water resources through the implementation of local regulations designed for this purpose; ensuring that water resources are allocated fairly and that regional water plans take into account the need to preserve spring flows, streams, watersheds and native species; and other agenda as agreed upon by our member groups as regards preservation of the quality and quantity of our water resources. During State Legislative sessions GEAA proves invaluable in educating policy makers, elected officials and the general public about measures needed to protect our water resources.
- The **GEAA Transportation Program** calls for steering investment in major highway expansions and extensions to the east and downstream of the Edwards Aquifer recharge zone while managing roadways within the Edwards Aquifer Recharge and Contributing zones for safety, recreation, and scenic beauty. The Transportation Program includes research, communication, and support for community planning efforts within the Edwards region.

Education and Outreach

One of the most common misconceptions that the general public holds is that the Edwards Aquifer, like most other aquifers, filters water entering its reservoir through layers of sand and gravel. The Edwards, however, is a karst aquifer. The karst limestone structure of the Edwards Aquifer allows for only minimal filtration of water entering the aquifer, making it vulnerable to contamination from urban runoff "nonpoint source" pollution. To educate the public, GEAA has designed a comprehensive curriculum of accurate, up-to-date scientific information on cave formation and the chemistry, geology, and biology of karst aquifers.

- **Teachers In-Service Programs** serve middle school and high school science teachers of San Antonio's seventeen independent school districts. Free workshops on karst geology and the Edwards Aquifer include demonstrations of lab exercises, presentations by experts in the field of karst geology and a guided tour of a karst recharge cave. Teachers receive Texas Essential Knowledge and Skills (TEKS) and Texas Assessment of Knowledge and Skills (TAKS) appropriate curricula, maps and audiovisual presentations for use in the class room, lab exercises, lectures and hands-on demonstrations about all aspects of karst aquifers, including human impact on the Edwards Aquifer. One hundred eighty teachers each year earn Continuing Education Credit by participating in this program.

- Our animated DVD/CD ROM "**Inner View of the Edwards Aquifer**", produced in partnership with KLRN TV, has been widely distributed to area teachers. The DVD/CD ROM presents lessons for five class sessions accompanied by lab exercises that illustrate the lessons covered in each segment. This package, which covers TEKS requirements for grades fifth through eighth, enhances the teachers' ability to present the material and provides a local perspective to state required texts. "Inner View of the Edwards Aquifer" is available to teachers participating in the workshops; via KLRN TV Educational Video Stream; and on GEAA and school districts' websites. **Student Field Trips** - With funding from the City of San Antonio, GEAA has added a new outdoor education initiative to bring four groups of 30 middle school students, accompanied by their teachers, on a hike at Government Canyon State Natural Area to learn first-hand how the Edwards Aquifer system functions and its importance to sustaining life in this region.

Upon completion of this program, students are able to identify the components of the Edwards Aquifer watershed, including the relationship between groundwater and surface water, the geologic forces that led to the formation of the Aquifer, and the environmental conditions created by the karst network that supports a number of unique species found nowhere else in the world. Additionally, students are able to engage in a serious discussion on how humans interact with this karst environment and the importance of responsible stewardship to conserve this essential resource.

- **In-Classroom Demonstrations** - GEAA staff regularly presents demonstrations of how the Edwards Aquifer works using the model aquifer to approximately eight hundred students per year in the classrooms throughout the region. This has been among the most requested of our education programs for the past two years.
- **Two Futures of the Hill Country -Mapping Growth Projected in the Texas Hill Country** - Working with member groups and others in the Hill Country, GEAA has initiated dialogue and processes to facilitate a vision the future for this area that will sustain the culture, scenic roadways, rural beauty and natural ecosystem of the Texas Hill Country. Additional work is needed to paint the contrasting pictures of "where we are going now" versus "what is possible" by extending the mapping and animation to cover the entire Aquifer region, incorporating the vision of rural residents, scientists, planners, and all stakeholders who envision a more sustainable future for this region.

Membership Development

GEAA publishes and distributes informational materials that beautifully illustrate the workings of our karst aquifer and what needs to be done to make sure that the Edwards will be a clean and reliable source of water for future generations. GEAA staff solicits and recruits additional GEAA individual members and member groups, working to build consensus behind measures to preserve our water supply and the Texas Hill Country.

GEAA Public Relations Program

GEAA has become recognized as the regional voice for aquifer protection - earning numerous awards and recognition of our efforts by national, regional and local publications and media. GEAA maintains a website, communicates through e-mail with a vast network that reaches approximately 25,000 individuals, and regularly works with the press and media to highlight issues of concern and solutions to common problems. GEAA staff is frequently invited to speak at meetings and informational forums. In this way, GEAA educates thousands of people from all walks of life about what *they* can do to preserve the Edwards Aquifer. Key to protection of the Edwards Aquifer ecosystem is the cultivation of a population that is aware of these threats to their water supply, is prepared to advocate for specific measures to protect the Aquifer, and will contribute support for these efforts. We were honored to receive the 2006 Envision Central Texas Community Stewardship Award for *Raising Public Awareness*.

V. Marketing Plan (Advertising and Public Relations)

GEAA's marketing plan consists of a variety of events and activities that serve to spread the word about GEAA as well as educate individuals on the importance of the Edwards Aquifer. The following examples take place on an as needed or annual basis.

- Tabling Events - Green Fests, Fall Fests, Earth Day events - chance to advertise the organization, recruit new members, educate citizens about their involvement with recharge zone, and collect donations and fundraise via t-shirt sales.
- Email notifications - approximately 600 individuals on list, do not have to be a member to get notifications on updates concerning GEAA
- Member Group Leaders - distribute GEAA messages to their members, reaching approximately 25,000 individuals in the Edwards region
- Website - hosted on outside server, updated by GEAA Staff to reflect upcoming events and organization information
- Facebook Fan Page - serves as a means to reach individuals through this social network and to advertise (for free) upcoming GEAA events and concerns
- Texans for Every Drop Campaign- fundraising event in which individuals purchased a decal to support the campaign in exchange for recognition on the GEAA website
- Annual Feral Hog Roast - fundraising event in which Top San Antonio chefs donate their time to put on this event in which donors buy seats

Additional Events and Activities

- Yard Sign Campaign
- Special Conferences and Events
- Bulk Mailing Donation Forms to Members for Renewals

VI. Management & Organization

GEAA On-Site Staff

Annalisa Peace, *Executive Director*, holds an MS in Urban Administration from Trinity University and has over fifteen years experience working with non-profit and governmental organizations in a variety of capacities, including as a City Council aide, grants administrator with the City of San Antonio's Office of Cultural Affairs, Executive Director of Youth Orchestras of San Antonio, and Director of Development for the Carver Community Cultural Center. She has been instrumental in organizing citizens' campaigns in her hometown of San Antonio, including Aquifer Guardians in Urban Areas (AGUA), the Salado Nature Trail Project, and Smart Growth San Antonio, serving, as well, on the steering committee of the Bexar Land Trust, and on numerous governmental boards and ad-hoc committees, including the City of San Antonio's Open Space Advisory Board, the Water Quality Task Force that drafted San Antonio's water quality rules, and as Community Co-Chair of the Kelly AFB Restoration Advisory board. Ms. Peace currently serves on the boards of the Happy Foundation and the San Antonio League of Women Voters and is a member of the American Planners Association, the Association of Professional Fundraisers.

Lisa Bowers, *Special Projects Coordinator*, was born and raised in the Bronx, New York. She ventured to San Antonio, Texas to attend Trinity University. Lisa has since graduated with a Bachelor of Arts degree in Studio Art. Her paintings and drawings, appropriately enough, refer to environmental issues as well as center upon animal rights and feminist themes. In addition to her studies of painting, drawing and art history, Lisa has a passion for environmental policy and justice. As GEAA's Special Projects Coordinator, Lisa continues to pursue these interests.

Tom Hayes, *Science Director*, received his BA in Biology from Rice University, Masters of Forest Science from Yale University, and Ph.D. in biogeochemistry and disturbance ecology from the University of California, Berkeley. He has authored over 100 publications and technical papers, plus numerous conference and workshop presentations. Tom has worked over 30 years as a natural resource manager, research ecologist, university educator, and conservation biologist. His experience

encompasses ecological and environmental monitoring, habitat restoration, rare species conservation, silviculture, ecological baseline and impact analysis, reserve design and management, regulatory biology, biogeochemistry, and expert testimony. His conservation projects include a variety of plant and animal species, and a diversity of terrestrial, wetland, and aquatic habitats. Tom started his current position with GEAA in October 2008. His employment history includes: associate scientist, U. of Wisconsin, Stevens Point (2005-2008); research ecologist, U. of Wisconsin, Madison (2003-05); research faculty, Oregon State U., Corvallis (1996-2003); Ph.D. candidate (part-time), U. of California, Berkeley (1993-2002); state stewardship ecologist, The Nature Conservancy of Texas (1989-92); senior biologist, Texas Parks & Wildlife Dept, Austin (1985-89); and project manager/biologist, Espey, Huston & Associates, Austin, TX, (1978-84).

Carol Mendoza Fisher, *Technical Director*, has a BS in Resource and Environmental Studies from Texas State University at San Marcos. Carol has worked as a Federal Contractor specializing in Hazardous Waste Management; as Technical Director for Aquifer Guardians in Urban Areas (AGUA) advocating aquifer protection in the San Antonio area; and most recently for the Texas Commission on Environmental Quality (TCEQ), where she specialized in air, water, and waste rules, permitting and compliance. During her time at TCEQ, she became the Region 13 Edwards Aquifer Liaison. In this capacity she developed a great appreciation for the investigators and permit writers with whom she worked. The partnerships Carol established at TCEQ in conjunction with the U.S. Environmental Protection Agency are still active and serve her well in her current role as GEAA Technical Director. Carol joined GEAA staff in January 2009. Her primary focus is on developing and advocating better regulation to protect our water resources. Carol also plans educational workshops for local regulators, developers, and building professionals on topics pertinent to aquifer protection, and plays an active part in reviewing upcoming development plans that will impact the Edwards Aquifer.

VII. Financial Plan

GEAA is funded primarily by donations and grants from private investors and individuals interested in aiding in the fulfillment of the GEAA mission statement.

GEAA has been running since 2005, however their first fiscal year was 2006. The annual Profit and Loss Statements for 2006, through 2010 are attached as Appendix A.

Appendix A: Profit & Loss Statements

2006

Greater Edwards Aquifer Alliance Profit & Loss January through December 2006

	<u>Jan - Dec 06</u>
Ordinary Income/Expense	
Income	
Interest Income	65.17
Memberships	
Individual	9,839.36
Memberships - Other	1,025.00
Total Memberships	<u>10,864.36</u>
Contributions	
Foundations	106,207.00
Unrestricted	1,243.00
Total Contributions	<u>107,450.00</u>
Earned Income	
Tickets-Admissions	1,450.00
Spec Events Inc - recode	7,900.00
Rent	5,987.00
Sales-Merch	112.00
Misc. Income (rarely used)	738.94
Total Earned Income	<u>16,187.94</u>
Total Income	134,567.47
Expense	
Sweep Monthly Fee	15.00
Teachers In-Serv- re-code	1,215.00
Marketing & Advertising	
Print/radio/tv advertising	500.00
Marketing & Advertising - Other	15.00
Total Marketing & Advertising	<u>515.00</u>
Prof Services	
Bookkeeping	1,275.00
Contract Labor	6,412.03
IRS Tax Prep	1,200.00
Total Prof Services	<u>8,887.03</u>
Summits/Retreats	
BD/Staff/MembMtg	260.00
Summits/Retreats - Other	1,220.57
Total Summits/Retreats	<u>1,480.57</u>
Equip	
Computer/Hdwr Purch	719.96
Software Purch	433.79
Repair	462.50
Total Equip	<u>1,616.25</u>
Special Events	
Caterer/Food for Events	2,671.29
Spec Ev Supplies Misc	16.76
Ins - Event	300.00
Total Special Events	<u>2,988.05</u>

Greater Edwards Aquifer Alliance
Profit & Loss
January through December 2006

	Jan - Dec 06
Admin	
Print & copy	2,997.51
Postage & Express	2,460.01
Direct Mail	72.00
Design/Graphics	150.00
Tele/Internet	3,750.58
Office Supplies	1,969.59
Food (non-event)	367.03
Subsc, Memb's	465.00
Support/Ref Materials	150.00
Rent Office	8,400.00
Utilities	995.70
Misc Exp (rarely used)	1,360.58
Total Admin	23,138.00
Salaries, Benefits, & Contract	
Executive Director	42,708.26
Office Salaries	16,543.44
Payroll Taxes	4,333.88
Health Insurance	725.01
Total Salaries, Benefits, & Contract	64,310.59
Travel	
Mileage	3,171.66
Total Travel	3,171.66
Bank & CC Service Charges/Fees	381.08
Voided Checks	0.00
Total Expense	107,718.23
Net Ordinary Income	26,849.24
Net Income	26,849.24

2007

**Greater Edwards Aquifer Alliance
Profit & Loss
January through December 2007**

	Jan - Dec 07
Ordinary Income/Expense	
Income	
Weekend Sweep Fee	15.00
Interest Income	404.74
Memberships	
Individual	24,101.50
Memberships - Other	14,260.00
Total Memberships	38,361.50
Contributions	
Foundations	128,572.00
Unrestricted	1,614.90
Restricted	4,525.00
Total Contributions	134,711.90
Earned Income	
Tickets-Admissions	600.00
Spec Events Inc - recode	17,859.40
Rent	5,905.00
Misc. Income (rarely used)	500.00
Total Earned Income	24,864.40
Total Income	198,357.54
Expense	
Sweep Monthly Fee	20.00
Marketing & Advertising	
Print/radio/tv advertising	1,913.75
Total Marketing & Advertising	1,913.75
Prof Services	
Bookkeeping	2,590.00
Contract Labor	2,450.00
Legal fees	
SAWS CCN	4,861.35
Legal fees - Other	1,183.00
Total Legal fees	6,044.35
Web Site Maint	2,447.58
Total Prof Services	13,531.93
Summits/Retreats	
Reg Fees	161.50
BD/Staff/MembMtg	185.00
Total Summits/Retreats	346.50
Equip	
Equip Purch	145.00
Repair	200.25
Total Equip	345.25
Special Events	
Entertainment/Music	500.00
Caterer/Food for Events	12,209.51
Tabling Fees	10.00
Total Special Events	12,719.51

Greater Edwards Aquifer Alliance
Profit & Loss
 January through December 2007

	Jan - Dec 07
Admin	
Print & copy	3,889.91
Postage & Express	4,549.83
Direct Mail	26.00
Design/Graphics	12,616.25
Tele/Internet	1,810.12
Cell Phone	577.41
Office Supplies	1,722.56
Subsc, Memb's	157.50
Support/Ref Materials	3,684.50
Rent Office	8,350.00
Utilities	811.45
Misc Exp (rarely used)	1,422.52
Total Admin	39,618.05
Program Costs	
Research	-163.06
Legislative & Advocacy	10,792.06
Total Program Costs	10,629.00
Salaries, Benefits, & Contract	
Executive Director	48,000.00
Office Salaries	31,544.29
Payroll Taxes	5,011.45
Employer Payroll Exp	392.40
Health Insurance	2,117.34
Total Salaries, Benefits, & Contract	87,065.48
Travel	
Mileage	3,065.55
Total Travel	3,065.55
Bank & CC Service Charges/Fees	244.18
Voided Checks	0.00
Total Expense	169,499.20
Net Ordinary Income	28,858.34
Net Income	28,858.34

2008

**Greater Edwards Aquifer Alliance
Profit & Loss
January through December 2008**

	Jan - Dec 08
Ordinary Income/Expense	
Income	
Uncategorized Income	4.85
Interest Income	344.60
Memberships	
Individual	12,870.00
Total Memberships	12,870.00
Contributions	
Foundations	214,227.90
Restricted	13,530.61
Total Contributions	227,758.51
Earned Income	
Donations	266.00
Tickets-Admissions	20,946.00
Auction	1,395.99
Rent	5,981.48
Reimb (dep to exp acct if appl)	301.00
Sales-Merch	300.00
Total Earned Income	29,190.47
Total Income	270,168.43
Expense	
Uncategorized Expenses	0.05
Reconciliation Discrepancies	0.43
Marketing & Advertising	
Print/radio/tv advertising	2,830.00
Total Marketing & Advertising	2,830.00
Prof Services	
Bookkeeping	9,625.82
Legal fees	
SAWS CCN	16,282.26
Legal fees - Other	12,675.00
Total Legal fees	28,957.26
Web Site Maint	2,646.24
Total Prof Services	41,229.32
Summits/Retreats	
BD/Staff/MembMtg	20.00
Summits/Retreats - Other	3,941.90
Total Summits/Retreats	3,961.90
Equip	
Equip Purch	1,575.00
Computer/Hdwr Purch	649.97
Software Purch	311.98
Total Equip	2,536.95
Special Events	
Entertainment/Music	900.00
Caterer/Food for Events	11,035.30
Space Rental	1,850.00
Spec Ev Supplies Misc	2,459.54
Total Special Events	16,244.84

Greater Edwards Aquifer Alliance
Profit & Loss
 January through December 2008

	Jan - Dec 08
Admin	
BOD	745.00
Print & copy	2,542.38
Postage & Express	1,322.57
Design/Graphics	1,248.12
Tele/Internet	1,897.87
Cell Phone	427.14
Office Supplies	1,979.81
Subsc, Memb's	79.95
Rent Office	8,325.00
Utilities	1,008.77
Total Admin	19,576.61
Program Costs	
Tech Program	11,776.49
Education	
Office Salary	300.52
Education - Other	13,864.13
Total Education	14,164.65
Research	
Office Salary	4,618.57
Research - Other	18,154.97
Total Research	22,773.54
Member Group Support	58,725.00
Total Program Costs	107,439.68
Salaries, Benefits, & Contract	
Executive Director	51,993.60
Office Salaries	32,522.20
Payroll Taxes	9,429.65
Health Insurance	8,694.80
Total Salaries, Benefits, & Contract	102,640.25
Travel	
Mileage	2,999.60
Parking	7.00
Total Travel	3,006.60
Bank & CC Service Charges/Fees	881.32
Voided Checks	0.00
Total Expense	300,347.95
Net Ordinary Income	-30,179.52
Net Income	-30,179.52

2009

**Greater Edwards Aquifer Alliance
Profit & Loss
January through December 2009**

	Jan - Dec 09
Ordinary Income/Expense	
Income	
Memberships	
Individual	54,036.89
Total Memberships	54,036.89
Contributions	
Foundations	137,346.00
Corporate	1,190.00
Restricted	61,203.68
Total Contributions	199,739.68
Earned Income	
Donations	116.00
Tickets-Admissions	25,770.00
Auction	1,161.35
Spec Events Inc - recode	250.00
Rent	5,595.00
Reimb (dep to exp acct if appl)	2,334.11
Sales-Merch	974.50
Misc. Income (rarely used)	260.16
Total Earned Income	36,461.12
Total Income	290,237.69
Expense	
Marketing & Advertising	
Print/radio/tv advertising	1,665.06
Marketing & Advertising - Other	344.27
Total Marketing & Advertising	2,009.33
Prof Services	
Audit	7,000.00
Bookkeeping	1,135.30
Contract Labor	3,465.49
Legal fees	
SAWS CCN	2,382.62
Legal fees - Other	48,375.00
Total Legal fees	50,757.62
Web Site Maint	1,635.75
Total Prof Services	63,994.16
Summits/Retreats	
Reg Fees	25.00
Summits/Retreats - Other	178.54
Total Summits/Retreats	203.54
Equip	
Equip Purch	1,131.00
Software Purch	3,047.00
Repair	647.48
Total Equip	4,825.48
Special Events	
Caterer/Food for Events	11,629.72
Space Rental	567.08
Spec Ev Supplies Misc	1,205.06
Special Events - Other	652.40
Total Special Events	14,054.26

Greater Edwards Aquifer Alliance
Profit & Loss
January through December 2009

	Jan - Dec 09
Admin	
BOD	757.94
Print & copy	309.67
Postage & Express	812.56
Direct Mail	403.99
Design/Graphics	330.00
Tele/Internet	2,821.40
Cell Phone	449.06
Office Supplies	1,067.74
Merch to sell Exp	885.00
Subsc, Memb's	1,890.00
Rent Office	15,717.00
Utilities	1,283.59
Total Admin	26,727.95
Program Costs	
Tech Program	
Payroll Tax	21.51
Tech Program - Other	3,288.00
Total Tech Program	3,309.51
Education	
Payroll Tax	49.61
Office Salary	648.64
Education - Other	3,169.62
Total Education	3,867.87
Research	
Payroll Tax	4,783.16
Office Salary	58,918.94
Total Research	63,702.10
Legislative & Advocacy	12,000.00
Member Group Support	27,498.90
Program Costs - Other	4,500.00
Total Program Costs	114,878.38
Salaries, Benefits, & Contract	
Executive Director	52,000.00
Office Salaries	29,337.00
Payroll Taxes	6,220.42
Health Insurance	13,965.50
Prof Dev/Training	1,045.00
Total Salaries, Benefits, & Contract	102,567.92
Travel	
Mileage	4,444.49
Parking	32.00
Total Travel	4,476.49
Bank & CC Service Charges/Fees	1,740.78
Total Expense	335,478.29
Net Ordinary Income	-45,240.60
Net Income	-45,240.60

2010

Greater Edwards Aquifer Alliance
Profit & Loss
 January 1 through December 10, 2010

	Jan 1 - Dec 10, 10
Ordinary Income/Expense	
Income	
Uncategorized Income	1,512.67
Memberships	
Individual	105,094.51
Total Memberships	105,094.51
Contributions	
Foundations	23,974.60
Corporate	9,550.00
Restricted	95,000.00
Total Contributions	128,524.60
Earned Income	
Donations	775.00
Tickets-Admissions	7,595.00
Auction	3,763.62
Rent	4,950.00
Reimb (dep to exp acct if appl)	201.93
Sales-Merch	162.70
Earned Income - Other	250.00
Total Earned Income	17,698.25
Total Income	252,830.03
Expense	
Uncategorized Expenses	1,460.50
Marketing & Advertising	
Print/radio/tv advertising	262.25
Marketing & Advertising - Other	220.00
Total Marketing & Advertising	482.25
Prof Services	
Bookkeeping	596.50
Contract Labor	1,300.80
Legal fees	
SAWS CCN	562.20
Legal fees - Other	4,510.00
Total Legal fees	5,072.20
Web Site Maint	380.00
Total Prof Services	7,349.50
Summits/Retreats	10.00
Equip	
Computer/Hdwr Purch	97.32
Software Purch	38.99
Total Equip	136.31
Special Events	
Caterer/Food for Events	2,435.81
Space Rental	490.00
Spec Ev Supplies Misc	5.94
Tabling Fees	10.00
Ins - Event	300.00
Special Events - Other	130.00
Total Special Events	3,371.75

Greater Edwards Aquifer Alliance
Profit & Loss
January 1 through December 10, 2010

	Jan 1 - Dec 10, 10
Admin	
BOD	825.55
Print & copy	1,115.99
Postage & Express	438.52
Design/Graphics	18.50
Tele/Internet	3,016.76
Office Supplies	464.87
Subsc, Memb's	1,833.15
Rent Office	8,950.00
Utilities	1,152.72
Misc Exp (rarely used)	10.00
Total Admin	17,826.06
Program Costs	
Tech Program	
Payroll Tax	131.58
Office Salary	1,720.00
Tech Program - Other	185.96
Total Tech Program	2,037.54
Education	83.86
Research	
Payroll Tax	5,799.22
Office Salary	70,416.71
Research - Other	7.00
Total Research	76,222.93
Legislative & Advocacy	420.00
Member Group Support	52,981.25
Program Costs - Other	5,416.67
Total Program Costs	137,162.25
Salaries, Benefits, & Contract	
Executive Director	36,833.31
Office Salaries	27,005.55
Payroll Taxes	5,219.21
Health Insurance	14,147.92
Prof Dev/Training	324.00
Salaries, Benefits, & Contract - Other	4,333.33
Total Salaries, Benefits, & Contract	87,863.32
Travel	
Mileage	2,481.91
Parking	13.00
Total Travel	2,494.91
Bank & CC Service Charges/Fees	2,144.66
Voided Checks	0.00
Total Expense	260,301.51
Net Ordinary Income	-7,471.48
Net Income	-7,471.48

Appendix B: Member Groups

- Alamo Group of the Sierra Club
- Aquifer Guardians in Urban Areas
- Austin Regional Sierra Club
- Bexar Audubon Society
- Boerne Together
- Cibolo Nature Center
- Citizens Allied for Smart Expansion
- Environmental Stewardship Committees of the Episcopal Church of Reconciliation & Episcopal Diocese of West Texas
- Environment Texas
- First Universalist Unitarian Church of San Antonio
- Friends of Canyon Lake
- Fuerza Unida
- Government Canyon Natural History Association
- Hays Community Action Network
- Helotes Heritage Association
- Helotes Nature Center
- Hill Country Planning Association
- Guardians of Lick Creek
- Kendall County Well Owners Association
- Kinney County Ground Zero
- Medina County Environmental Action Association
- Northwest Interstate Coalition of Neighborhoods
- OST 100
- Preserve Castroville
- Preserve Lake Dunlop Association
- Preserve Our Water-Blanco County
- San Antonio Audubon Society
- San Antonio Conservation Society
- San Geronimo Valley Alliance
- San Marcos Greenbelt Alliance
- San Marcos River Foundation
- Santuario Sisterfarm
- Save Barton Creek Association
- Save Our Springs Alliance
- Scenic Loop/Boerne Stage Alliance
- Securing a Future Environment
- SEED Coalition
- Solar San Antonio
- Sisters of the Divine Providence
- Smart Growth San Antonio
- Texas Water Alliance
- West Texas Springs Alliance
- Wildlife Rescue & Rehabilitation
- Wimberley Valley Watershed Association

Appendix C: Edwards Aquifer Protection Plan

Edwards Aquifer Protection Plan

Presented by the Greater Edwards Aquifer Alliance



Endorsed by:

- **Alamo Group of the Sierra Club**
- **Aquifer Guardians in Urban Areas**
- **Austin Regional Sierra Club**
- **Bexar Audubon Society**
- **Boerne Together**
- **Cibolo Nature Center**
- **Citizens Allied for Smart Expansion**
- **Environmental Stewardship Committees of the Episcopal Church of Reconciliation & Episcopal Diocese of West Texas**
- **Environment Texas**
- **First Universalist Unitarian Church of San Antonio**
- **Friends of Canyon Lake**
- **Fuerza Unida**
- **Government Canyon Natural History Association**
- **Hays Community Action Network**
- **Helotes Heritage Association**
- **Helotes Nature Center**
- **Hill Country Planning Association**
- **Guardians of Lick Creek**
- **Kendall County Well Owners Association**
- **Kinney County Ground Zero**
- **Medina County Environmental Action Association**
- **Northwest Interstate Coalition of**
- **Neighborhoods**
- **OST 100**
- **Preserve Castroville**
- **Preserve Lake Dunlop Association**
- **Preserve Our Water-Blanco County**
- **San Antonio Audubon Society**
- **San Antonio Conservation Society**
- **San Geronimo Valley Alliance**
- **San Marcos Greenbelt Alliance**
- **San Marcos River Foundation**
- **Santuario Sisterfarm**
- **Save Barton Creek Association**
- **Save Our Springs Alliance**
- **Scenic Loop/Boerne Stage Alliance**
- **Securing a Future Environment**
- **SEED Coalition**
- **Solar San Antonio**
- **Sisters of the Divine Providence**
- **Smart Growth San Antonio**
- **Texas Water Alliance**
- **West Texas Springs Alliance**
- **Wildlife Rescue & Rehabilitation**
- **Wimberley Valley Watershed Association**

Table of Contents

1. THE EDWARDS AQUIFER DECLARATION

2. SETTING

3. VISION

4. POSITIONS

A. Edwards Aquifer Watershed Parkland and Preserve System

B. Regional Plan

C. Not on Our Aquifer—Not with Our Money

D. Democracy

E. Water Quality

F. Use Restrictions

G. Water Quantity

EXHIBIT A: REGULATIONS TO PROMOTE TRANSPARENCY IN THE DEVELOPMENT PROCESS

EXHIBIT B: RECOMMENDED MINIMUM WATER QUALITY REGULATIONS

Impervious Cover Limits

Stream Setbacks

Storm Runoff Volume Limits

Critical Environmental Feature Protection *

Landscape Chemicals *

Construction Phase Controls *

Extended Detention *

Wastewater Line and Pump Station Construction and Maintenance Standards *

On-Site Sewage Facilities

Effluent Irrigation Standards *

Water Quality Controls *

Fiscal Surety *

Variance Procedures *

Operation and Maintenance Permits *

1. THE EDWARDS AQUIFER DECLARATION

The Edwards Aquifer Ecosystem of Central Texas is one of our most valuable, irreplaceable and endangered public treasures. It is our right and duty to preserve and protect the Aquifer, its contributing Hill Country watersheds, its great springs, and its native biodiversity for the benefit of all residents and all future generations. As individuals and

community-based organizations, we invite everyone who shares the following principles to preserve the Edwards Aquifer to join with us:

1. Water is necessary to life. It must be conserved, reclaimed and protected for all future generations and its natural patterns respected;
2. Water is a fundamental human right and a public trust to be guarded by all levels of government.
3. The water in aquifers, rivers and lakes should not be privatized nor treated as a mere commodity to be sold or traded for commercial purpose.
4. Local communities must be respected as equal partners with governments in the protection and regulation of water.

2. SETTING

Hundreds of millions of years ago, limestone deposits formed on the landscape of Central Texas. Geological forces along the Balcones Escarpment uplifted some of this rock, creating the Edwards Aquifer and its Great Springs. For thousands of years these springs have flowed forth pure and unobstructed. During the entire period of human activity in Central Texas, these large Edwards Aquifer springs have been a community focus. In the most recent 200 years, the Aquifer and its Great Springs have dictated the location and provided the essential life blood for communities along the Balcones Escarpment, including Salado, Austin, San Marcos, New Braunfels, San Antonio, Brackettville, and Del Rio.

Today the Edwards Aquifer is the sole source of drinking water for more than 1.5 million residents and more than two dozen communities. The Aquifer, its contributing watersheds, and its clean and abundant flows are essential to the economic activity that sustains our communities. The Aquifer and its contributing watersheds are also home for more than fifty unique species of plants and animals. Many of these species are threatened with extinction and new species continue to be discovered.

The faulted and karstic limestone geology of the Edwards Aquifer Ecosystem makes it particularly vulnerable to pollution. Excessive pumping of the Southern Edwards segment has severely reduced spring flows; San Antonio and San Pedro Springs are frequently dry. Contamination from urban runoff threatens the San Antonio, Barton Springs, and northern segments of the Edwards Aquifer.

Despite immeasurable natural, spiritual, economic, aesthetic and recreational values and benefits, human development now threatens the basic integrity of the Edwards Aquifer Ecosystem. Without the decisive action recommended herein, population growth, expanding water demands, and suburban sprawl will irreversibly pollute and deplete this uniquely valuable and irreplaceable water source.

3. VISION

In our vision of the future, currently rural Hill Country watersheds of the Edwards Aquifer remain rural. The flows of the Aquifer and its contributing streams are managed to sustain spring flows, native wildlife, and downstream water needs, including the freshwater needs of coastal bay and estuary ecosystems. Children safely swim and play in all rivers and creeks that feed the aquifer.

Economic growth, supporting a living wage for all, is based on sustainable development. Urban growth is directed to preferred growth areas downstream of the Edwards Aquifer recharge zone. The rate, location, and design of development are managed to minimize water consumption and sprawl, protect air and water quality, provide affordable housing, prevent visual blight, and minimize dependence on the automobile. In our vision of the future, the Edwards Aquifer Hill Country watersheds provide water, recreational opportunities, and a scenic setting for downstream communities from Salado to San Antonio forever.

Since the Hill Country watersheds that feed the Aquifer are increasingly desirable areas for development—largely without restriction or regulation—we must take decisive action now to assure adequate protection through scientifically sound and fair regulation. We must steer development and supporting infrastructure to downstream areas, and acquire park and watershed preserves.

4. POSITIONS

A. Edwards Aquifer Watershed Parkland and Preserve System

Even without additional development, there is a serious deficit in parkland, preserves, and other open space in the Texas Hill country. A recent Texas Parks and Wildlife Department study recommended acquiring 1.4 million acres of new state parkland and 500,000 acres of local parkland.

To protect the Edwards Aquifer and promote a good quality of life for those who live on and around the aquifer, state and local governments should develop and implement plans to preserve 50% of the Edwards Aquifer Recharge Zone and 25% of the Contributing Zone as open space or no more than rural development. Priority should be given to acquiring lands targeted for near-term development on the recharge zone and within fifteen miles upstream of the recharge zone. Governments must use powers of eminent domain to acquire critical preserve areas.

At least 250,000 acres of the most threatened and critical Edwards Aquifer watershed lands must be immediately preserved through conservation easements, purchase of development rights, and land acquisition for a system of public parks and watershed preserves. To acquire and protect such acreage will require at least \$500 million. Government entities must pursue available funding for these purchases through the Safe Drinking Water Act, the Farm Bill, the Endangered Species Act and the Land and Water Conservation Fund.

Five hundred million dollars is a significant amount of money, but it is far less than the \$6 billion in parks acquisition recently approved by Florida voters and the \$4.7 billion recently approved by California voters. It is also far less than a single year of TxDOT highway expenditures in Austin and San Antonio and about one-half of the corporate personal property tax revenue that remains uncollected and unpaid in Texas each year.

No amount of money will clean up the Edwards Aquifer Ecosystem if it becomes contaminated through lack of foresight and action, chronic pollution from urban sprawl, or catastrophic spills of toxic materials.

B. Regional Plan

Residents need a Regional Plan for the Edwards Aquifer to limit development in the recharge and contributing zones to a level that will ensure the availability of water for current residents, springs and downstream users even in time of drought. The plan must preserve and restore the Edwards Aquifer and the rivers, creeks and streams that feed it. The residents' Regional Plan must be based on all available scientific information regarding the cumulative effects of development. It must be developed from a grass-roots process that empowers us to determine the future of our community and region.

In developing and implementing a residents' Regional Plan, we encourage and call on the participation of community organizations, academics, professional associations, and private sector leaders who value the long term viability of the Edwards Aquifer region. We also call on real estate investors and land developers to respect the desires of Edwards Aquifer region communities who have declared that suburban development is inappropriate for the aquifer recharge and contributing zones; and to act now to direct private development dollars to preferred growth areas downstream.

Implementing a Regional Plan will require coordination among the many governmental agencies with regulatory power in the Edwards Aquifer region. Because much of the undeveloped land in the aquifer region lies beyond municipal jurisdictions, counties need zoning and subdivision powers and authority to implement ordinances to protect water quality and flow.

Moratorium on High Density Development in Rural Areas. Until a residents' regional plan that adequately protects the Edwards Aquifer Ecosystem is developed and implemented with all necessary legislation, city and county governments should limit interim development within rural areas of the recharge and contributing zones to no more than ten per-cent impervious cover. This density level will protect the rural character of the landscape and water quality.

Moratorium on Infrastructure Expansion. Until the Regional Plan is in place and enabled with all necessary legislation, no public money should be spent to construct new or expand existing roads or utility infrastructure in the aquifer region.

C. Not on Our Aquifer—Not with Our Money

Billions of taxpayer dollars have financed the extension and expansion of roads and utilities over the Edwards Aquifer, enabling sprawling development that is degrading this uniquely precious resource. To halt this destructive use of public funds, no public expenditures or subsidies of any kind (including grants, fee waivers, loans, loan guarantees, sales tax refunds, utility fee or tax abatements) should be provided or extended to support further development in the Edwards Aquifer watersheds.

No special taxing development districts or municipal utility districts to finance or otherwise facilitate road or utility infrastructure construction or expansion in the recharge and contributing zones of the aquifer should be allowed or approved by any county, municipality, TCEQ or the Texas State Legislature .

Road funds matched with land acquisition funds. Any city, county, road district, or State of Texas money expended for highway and road construction and maintenance in the

recharge and contributing zones should be matched by an equal amount expended for the acquisition and maintenance of parks and preserves over the aquifer.

D. Democracy

Conservation districts should be established over the entire aquifer to regulate groundwater consumption and development activities to promote aquifer restoration. All conservation districts should have authority within their boundaries to:

- apportion and limit the amount of water that is pumped to sustainable levels;
- impose water conservation regulations;
- educate;
- regulate land use and activities, including but not limited to hazardous materials and impervious cover; and
- impose taxes and fees.

Conservation districts should *not* be empowered to facilitate construction of infrastructure and/or development.

Local Government Empowerment. All counties and water districts should have authority to regulate impervious cover and to limit and prevent activities and land uses detrimental to the Aquifer. When there are overlapping jurisdictions, the strictest requirements must apply.

Transparency in the development process. Development regulations should incorporate modern procedural changes to ensure transparency and public involvement in all stages of the application and permitting process. Cities and other regulatory authorities should adopt ordinances incorporating the provisions found in Exhibit A.

Grandfathering: Chapter 245. Chapter 245 of the Texas Local Government Code is being used by developers and cities to allow development construction in violation of current ordinances to protect water quality and the Edwards Aquifer. This application of the code has been interpreted to protect projects based on preliminary plans sometimes more than 20 years old. It is an unconstitutional abdication of government power, an unconstitutional delegation of legislative authority to private persons, and a violation of the right to clean water found in Article XVI, § 59 of the Texas Constitution. Even though Chapter 245 expressly exempts from its operation regulations intended to protect against injury to persons or imminent destruction to property, as do water protection ordinances, municipalities and other local governments are using this legislation to allow development that pollutes and degrades the Aquifer. The Texas Legislature should either eliminate or amend Chapter 245 to expressly exempt measures to protect water quality and quantity. We oppose any interpretation of Chapter 245 that exempts development from current water quality regulations, and we call on the Legislature to clarify to the people of Texas its intent to protect water and the Edwards Aquifer.

E. Water Quality

Any development in the Edwards Aquifer Recharge or Contributing Zones can adversely affect water quality in the aquifer. Specific recommendations to protect water quality are found in Exhibit B and below. Exhibit B does not reflect a recommended level of development and in no way is meant to suggest that increased levels of development are encouraged. Rather, should development over the aquifer proceed, the recommendations in Exhibit B must be implemented to minimize as much as possible the degradation of water quality that accompanies development.

Recommendations in Exhibit B include impervious cover limits, use restrictions, stream setbacks, flow volume limits, critical environmental feature protection, landscape chemical restrictions, construction phase controls, extended detention, wastewater line and pump station construction and maintenance standards, on-site sewage facility standards, effluent irrigation standards, water quality controls, fiscal surety, variance procedures, and operation and maintenance permits.

These recommendations are minimum requirements for long-term protection of the Edwards Aquifer. Additional measures may be needed to address particularly sensitive watersheds or circumstances, or to prevent drinking water or stream standards violations. These regulations alone, without large-scale park, preserve, easement, and open space acquisition will not ensure water protection and survival of the Edwards Aquifer.

Hazardous Substances & Groundwater Contamination. Chlorinated solvents, toxic metals, and pesticides are regularly detected in the Edwards Aquifer; at times in concentrations that threaten human health and sensitive plants and animals. Sources of many of these contaminants are unknown; but these man-made, toxic and carcinogenic chemicals are found in the Aquifer because we have failed to protect it from pollution. They result from storm runoff, leaks, spills, and illegal dumping. Hazardous substances will continue to contaminate the aquifer as long as they continue to be used over sensitive portions of the aquifer. Thus, the use of hazardous materials should be restricted in the Edwards contributing and recharge zones:

- *Commercial use:* Commercial use and storage of hazardous substances on the recharge zone and other sensitive portions of the aquifer must be prohibited. Exceptions should be made only where these substances are necessary to protect public health and safety, and only with robust precautions to protect drinking water, streams, and the aquifer.
- *Household use:* Outdoor use of hazardous substances must be prohibited. This prohibition would include man-made pesticides, fertilizers, and solvents like driveway cleaners. The prohibition would not include materials like paint and roofing materials normally required to maintain a house.

F. Use Restrictions

To prevent water pollution and unnecessary depletion of aquifer water, the following activities should be prohibited in the Edwards recharge and contributing zones:

- Mining;
- Oil pipelines;

- Racetracks for motor vehicles;
- Commercial pesticide manufacturing and storage;
- Commercial fuel storage;
- Cement plants;
- Commercial feedlots;
- Landfills; and
- Auto salvage yards.

The following activities should only be permitted for pre-existing, currently-operating sites:

- Gas stations
- Golf courses
- Water-based amusement parks

G. Water Quantity

Water in the Edwards region is limited. The Aquifer is replenished by only a small fraction of rainfall runoff. These limits to aquifer recharge require responsible stewardship of Aquifer water to provide for human health, agricultural and economic uses and to maintain the natural environment that depends upon stream and aquifer spring flows. Prudent water management demands a cautious approach emphasizing water conservation, shared shortage rules, development limitations, and water rights transfers from wasteful uses to more efficient and environmentally beneficial uses. Water use must be balanced with long-term sustainable yields to protect natural spring flows in times of drought.

Sustainable yield models should be developed to determine how much Aquifer recharge is needed to support aquatic ecosystems, spring flows, downstream flows, bay and estuary fishing and ecology, and current users of aquifer water.

Water Conservation. Municipalities, river authorities, and groundwater districts should enact aggressive efficiency measures to reduce average water use to no more than 125 gallons per capita daily (gpcd). Municipal utilities should be required to maintain water loss rates on their systems to below 10% and given incentives to reduce system losses to below 5%. Achieving the 125 gpcd goal requires coordination between utilities, the Edwards Aquifer Authority and other oversight bodies, as well as guidance through Best Management Practices (BMP) and technical assistance in implementing water use efficiency program.

Rainwater collection systems should be required on new construction with a minimum storage capacity of the first inch of rain over all roof surfaces.

Conservation pricing should be implemented by all ground and surface water suppliers in the Edwards Aquifer so that essential water use is affordable and excessive and wasteful consumption is progressively more expensive.

Agriculture. Pivot and other low-energy precision application methods should become standard agricultural irrigation practice. Agricultural water transmission should be improved by lining irrigation canals or replacing canals with closed pipes. Funding for agricultural water conservation should be provided through low-interest loan programs or by direct purchase by municipal users. Municipalities on the Edwards Aquifer can provide funding for agricultural water conservation in exchange for the direct benefit of less water waste of the overall resource. Water saved by agricultural water conservation can either be directly transferred to municipal use, or left in the aquifer to help provide a boost for overall water levels during dry years. "Dry-year options" or the purchase of agricultural water rights during the pre-irrigation season when the aquifer levels are below historical mean should remain a vibrant management tool in the region.

Interbasin transfers of water should be prohibited. Development should occur only to the extent it can be supported by the natural water ecology of the region.

River authorities or other entities should not extend water lines to rural or low density areas within the Aquifer recharge or contributing zones. These water lines encourage more development than can be supported by existing water supplies, and promote increases in impervious cover and development density, as well as unsustainable water use.

EXHIBIT A:
REGULATIONS TO PROMOTE TRANSPARENCY
IN THE DEVELOPMENT PROCESS

Development regulations should incorporate modern procedural changes to ensure transparency and public involvement in all stages of the zoning change, subdivision, or any other application and permitting process for new nonresidential construction or new residential construction involving more than 10,000 total square feet. These changes should be as follows:

1. Before filing any permit application, a developer must send a notice to owners of land within 1000 feet of the boundaries of the area subject to the application; and must also send notice to any registered neighborhood association having jurisdiction over the area subject to the application or any areas within 1000 feet of the boundaries of the area subject to the application. In this notice the developer should briefly describe the project and offer to meet with interested parties. The developer must meet with interested parties before submitting any project application.
2. Simultaneously with submitting an application, the developer must place and maintain a sign visible to passers-by at least 4 foot by 6 foot in dimension within four feet of a street adjacent to the property to be developed. On the sign the developer must describe in layman's terms the application sought, the project to be developed and include any drawings of the project that have been submitted to the City or regulatory authority. On the sign additionally shall appear prompt notice of any hearings involving the permit and government phone numbers, web site addresses, and listserv specifications where additional information can be obtained.
3. Simultaneously with the submission of the application, the City or regulatory body should create a listserv for each project providing for notification to interested persons of any events relating to the application.
4. The entire application, review and communication process should be public and available online in real time on a web page. All applications should be submitted online, all correspondence should be online and records of phone calls and calendars for all officials and regulatory staff dealing with the development process should be kept online and accessible to the public.
5. All meetings between city or regulatory staff and representatives of the developer should be public with prior notice through the listserv and web site given.
6. Staff should not make any recommendations to City Council or commissions or boards but should provide technical assistance and opinions as to whether the applicant has complied with the law.
7. All components of all applications should be submitted at least 5 days before the matter is to be considered by city council or a board or commission and no supplementary or amendatory changes should be allowed to be made to the

submissions within 5 days before consideration by the decision-making or deliberative body.

If the city or other regulator or developer is found to have violated any of these provisions, the permit is void and invalid, all development of the affected lots must cease and no certificate of occupancy issued until the defective procedure is revisited and the application process performed in a lawful manner. Violations additionally should be a class A misdemeanor prosecutable in municipal court and any other court of competent jurisdiction. Any resident should be granted qui tam authority to prosecute violations and obtain injunctive relief to enforce these provisions.

EXHIBIT B: RECOMMENDED MINIMUM WATER QUALITY REGULATIONS

Impervious Cover Limits

Impervious cover limits are essential to preserve the natural quality, quantity, and timing of flow into streams and springs. We recommend an impervious cover limit of 10% of net site area in the recharge zone and 15% of net site area in the contributing zone. Net site area should be defined as all land with slopes less than 15% outside of stream or Critical Environmental Feature (CEF) setbacks, golf courses, managed turf, and effluent-irrigated land. All building and transportation features except pedestrian walkways and bicycle trails shall be considered impervious.

Stream Setbacks

Natural soil, vegetation, and land forms adjacent to streams store flood water, remove water pollutants, provide baseflow from adjacent shallow soil seepage, keep water cooler by shading, stabilize stream bank soils, and provide riparian habitat. Development close to streams therefore has a larger negative impact on water quality and stream flow than development in upland areas. Storm runoff from adjacent development is often channeled directly into the stream without treatment. Destroying natural riparian areas, including tree removal, accelerates erosion, eliminates flood overflow areas, eliminates natural vegetative pollutant removal, and eliminates natural shading.

The width of the stream setback can depend on the sensitivity of the creek, its importance to spring flows or drinking water supplies, the width of the flood plain, and the size of the contributing watershed area. We recommend these minimum setbacks from streams based on the size of the contributing drainage area:

- 5-100 acre drainage area – 100 foot setback
- <100-500 acre drainage area – 200 foot setback
- <500 acres – 400 foot setback

Additionally, the setback shall never be less than the 100-year flood plain.

Storm Runoff Volume Limits

Storm runoff volumes after development are much larger than from natural sites, depending on the amount of constructed impervious area. This storm runoff volume increase represents a decrease in soil water infiltration: water available to plants, trees, and to sustain baseflow and aquifer recharge between rain events. The storm runoff volume increase also contributes to downstream erosion and flooding.

We recommend no increase in storm runoff volume more than 10% above that which is released from a site prior to proposed development.

Critical Environmental Feature Protection

Critical environmental features include karst solution openings, faults, fractures, springs, bluffs, and wetlands. Their identification and protection, usually by setbacks, reduces the risk of pollutants moving into the underlying aquifer and preserves natural water purification by surrounding vegetation and soils and aquifer recharge. Our ability to protect these features is limited by our ability to identify all of the features prior to development, and by the expense or unfeasibility of redesign if features are discovered during construction.

We recommend a 300-foot setback from any feature with the potential for transmitting flow directly to the aquifer, a 150-foot setback on the upstream side and 50-foot setback on the downstream side of any feature without the potential for transmitting flow to the aquifer.

Further, we recommend a ban on plugging of critical environmental features.

Landscape Chemicals

Many of the pesticides, herbicides, and fungicides applied to lawns, landscaped areas, and golf courses are toxic or carcinogenic in very small quantities. Excess nutrients can impair fertility of native plants and wildlife and disrupt ecosystems. They can be persistent and mobile through soils, rainfall runoff, and groundwater flow.

We recommend a prohibition on the application of any nitrogen fertilizers in a form, during any time, or at a rate that might result in nitrogen migration to surface or groundwater; prohibition on the application of herbicides and pesticides except those shown to represent no risks of migration and/or water contamination (except during a public health crisis); and prohibition on the use of non-native plants for landscaping in new developments.

Construction Phase Controls

Approximately 20% of all pollution from urban development is generated during construction. Construction phase controls to limit sediment migration include silt fences, rock berms, and sediment basins, as well as requirements for construction sequencing that puts these protections in place before clearing vegetation and moving dirt.

These regulations are usually not controversial. The largest problem is implementation, enforcement and maintenance. Without careful oversight by committed staff, these controls are not constructed as designed, are breached to make construction more convenient, and are not maintained.

We recommend implementation, strict enforcement, and maintenance of construction phase controls at least as strict as the City of Austin and TCEQ Edwards Rules.

Extended Detention

An estimated 80% of suspended sediment in streams is derived from bank erosion. Development contributes to this load by increasing storm runoff peak flows and/or runoff volumes. Extended detention regulations require storm runoff to be detained on a site and released slowly back to the stream channel over longer time periods: 24 to 48 hours. Extended detention regulations require much larger storage volumes than those required for no increase in the pre-developments peak flow rate.

We recommend a requirement to detain a one year, three hour rain event for at least 24 hours.

Wastewater Line and Pump Station Construction and Maintenance Standards

Wastewater lines leak. They contribute pollution, including nutrients, pathogens, and toxic chemicals, to the Edwards Aquifer. They are widespread and underground. Leaks are difficult to identify, locate or repair.

We recommend a requirement for zero-discharge standards for new wastewater lines and regular testing and maintenance of all lines at least every 5 years to repair leaks.

On-Site Sewage Facilities

On-site sewage facilities include septic systems to serve individual homes and small businesses, as well as cluster systems to serve flows in excess of 5,000 gallons per day. Major issues associated with on-site sewage facility regulations include minimum lot sizes, minimum separation distances for wells, streams, or critical environmental features, minimum depth to groundwater or bedrock, soil specifications, treatment requirements, and on-going inspection and maintenance requirements.

We recommend nitrogen reduction in all treated wastewater to no more than 2.0 mg/l total nitrogen, or 5.0 mg/l total nitrogen where discharge is to a vegetative system with demonstrated nutrient uptake capacity for the effluent loads applied, as well as an annual operating permit required to demonstrate maintenance.

Effluent Irrigation Standards

Effluent irrigation standards should include minimum creek setbacks, requiring water and nutrient (particularly nitrogen) balances, and requiring adequate storage capacity to hold wastewater effluent during high rainfall periods when soils are saturated.

We recommend nitrogen reduction in all treated wastewater to no more than 2.0 mg/l total nitrogen, or 5.0 mg/l total nitrogen where discharge is to a vegetative system with demonstrated nutrient uptake capacity for the effluent loads applied, and storage required to prevent nitrogen leaching from the disposal area for rainfall conditions during the entire period of record based on daily nitrogen balance analysis.

Water Quality Controls

Water quality control standards typically establish the design basis for engineered systems to remove storm runoff pollutants.

We recommend water quality controls designed to remove 100% of the increase in average annual pollutant load for any pollutant based on a demonstration for at least these constituents: total suspended solids, chemical oxygen demand, nitrogen, phosphorous, and lead. A demonstration must be made for any other constituent determined to be limiting on the design. We recommend a requirement for an annual operating permit to ensure proper maintenance and repair.

Fiscal Surety

We recommend fiscal surety or construction bonding in the amount of 100% of the water quality control construction and installation costs in escrow or as a letter of credit. The letter must be irrevocable for two years from the final plat approval date. Ten percent of the construction costs are maintained for two years after acceptance of the completed construction as a maintenance security. If the developer fails to construct the approved plans or comply with conditions, the agency can use the fiscal surety to construct permanent controls as designed, or maintain construction-phase controls.

Variance Procedures

All regulations are written with some method to allow adjustment for individual circumstances. Water quality regulations should require a demonstration of one or more of the following as a basis for granting a variance:

- Implementation of the ordinance without variance results in a violation of state or federal law;
- Implementation of the ordinance would deprive the property owner of all reasonable use of their property; and/or
- Granting the requested variance will result in water quality equal to or better than what would result from strict application of the regulations.

Operation and Maintenance Permits

Ongoing permits must be implemented to provide a mechanism for ensuring adequate long-term maintenance for water quality controls, on-site sewage facilities, and recreational turf facilities.